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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,351	07/10/2003	Gary Ruvkun	00786/423002	5214

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EXAMINER	
SAIDHA, TEKCHAND	
ART UNIT	**PAPER NUMBER**
1652	

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/617,351	RUVKUN ET AL.	
	Examiner	Art Unit	
	Tekchand Saidha	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2004*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-29* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
Group 1, claim(s) 1-2 & 10-11 (in-part), drawn to a method of identifying a nucleic acid encoding a fat metabolism regulator or mutated fat metabolism regulator polypeptide consisting of *Ipo-1 (SEQ ID NO:2)*, class 435, subclass 6.

Groups 2-7, claim(s) 1-2 & 10-11 (in-part), drawn to a method of identifying a nucleic acid encoding a mutated fat metabolism regulator polypeptide selected from the group consisting of *Ipo-2, Ipo-3 (SEQ ID NO: 3), Ipo-4, Ipo-5, Ipo-6 and Ipo-7,* respectively (6 species), class 435, subclass 6.

Group 8, claim(s) 3-8 (in-part), drawn to a method of identifying a candidate compound that modulates fat metabolism providing a cell expressing a fat metabolism regulator nucleic acid encoding the first polypeptide listed in Table V, class 435, subclass 69.2.

Groups 9-937, claim(s) 3-8 (in-part), drawn to a method of identifying a candidate compound that modulates fat metabolism providing a cell expressing a fat metabolism regulator nucleic acid encoding the second polypeptide listed in Table V to the remainder of polypeptides in Tables V-VII & XII-XIV, respectively (929 polypeptide species, approximately), class 435, subclass 69.2.

Group 938, claim(s) 9 (in-part), drawn to a method of identifying a candidate compound that modulates fat metabolism providing a cell expressing a fat metabolism regulator polypeptide first listed in Table V, class 435, subclass 69.2.

Groups 939-1866, claim(s) 9 (in-part), drawn to a method of identifying a candidate compound that modulates fat metabolism providing a cell expressing a fat metabolism regulator nucleic acid encoding the second polypeptide listed in Table V to the remainder of polypeptides in Tables V-VII & XII-XIV, respectively (929 polypeptide species, approximately), class 435, subclass 69.2.

Group 1867, claim(s) 12 (in-part), drawn to a microarray consisting of at least 2 fat metabolism regulator nucleic acid, wherein inactivation of each of said fat metabolism regulator nucleic acid results in decrease in fat content, class 435, subclass 287.2.

Group 1868, claim(s) 13 (in-part), drawn to a microarray consisting of at least 2 fat metabolism regulator polypeptide molecule wherein inactivation of each of said fat

metabolism regulator polypeptide results in decrease in fat content, class 435, subclass 287.2.

Group 1869, claim(s) 14 (in-part), drawn to a method of identifying a candidate compound that modulates fat metabolism - contacting a cell with a candidate compound, obtaining mRNA from said cell, etc, class 435, subclass 69.2.

Group 1870, claim(s) 15 (in-part), drawn to a method of identifying a candidate compound that modulates fat metabolism - contacting a microarray with a candidate compound, wherein said binding identifies the candidate compound, class 435, subclass 69.2.

Group 1871, claim(s) 16-17 (in-part), drawn to a purified nucleic acid library, wherein at least 3% of the total nucleic acids in said library encodes fat metabolism regulator polypeptides, class 935, subclass 80.

Group 1872, claim(s) 18 (in-part), drawn to a purified isolated polypeptide comprising an amino acid sequence having 50% identity to the first amino acid sequence of a peptide listed in Table XV (82 species), class 435, subclass 69.1.

Groups 1873-2024, claim(s) 18 (in-part), drawn to a purified isolated polypeptide comprising an amino acid sequence having 50% identity to the second amino acid sequence of a peptide listed in Tables XV to the remainder of the polypeptides in Table XV and all the polypeptides of Table XVI (57 species) & XVII (14 species) (total of 153 polypeptide species), class 435, subclass 69.1.

Group 2025, claim(s) 20-22, 25 (in-part), drawn to a nucleic acid having 50% identity to the first nucleic acid sequence listed in Table XV, class 536, subclass 23.1.

Groups 2026-2177, claim(s) 20-22, 25 (in-part), drawn to a nucleic acid encoding a polypeptide which is the second amino acid sequence of a peptide listed in Tables XV to the remainder of the polypeptides in Table XV and all the polypeptides of Table XVI & XVII (153 species), class 536, subclass 23.1.

Group 2178, claim(s) 23 (in-part), drawn to a transgenic animal expressing a nucleic acid encoding a polypeptide which is the first amino acid sequence of a peptide listed in Table XV, class 800, subclass 8.

Groups 2179-2310, claim(s) 23 (in-part), drawn to a transgenic animal expressing a nucleic acid encoding a polypeptide which is the second amino acid sequence of a peptide listed in Tables XV to the remainder of the polypeptides in Table XV and all the polypeptides of Table XVI & XVII (153 species) respectively, class 800, subclass 8.

Group 2311, claim(s) 24 (in-part), drawn to an organism comprising a mutation in a fat metabolism regulator nucleic acid encoding a polypeptide which is the first amino acid sequence of a peptide listed in Table XV, class 435, subclass 7.2.

Group 2312-2460, claim(s) 24 (in-part), drawn to a organism comprising a mutation in a fat metabolism regulator nucleic acid encoding a polypeptide which is the second amino acid sequence of a peptide listed in Table XV to the remainder of the polypeptides in Table XV and all the polypeptides of Table XVI & XVII (153 species) respectively, class 435, subclass 7.2.

Group 2461, claim(s) 26 (in-part), drawn to an antisense nucleic acid which is complimentary to at least 6 nucleotide of the first nucleic acid encoding the first amino acid sequence of a polypeptide listed in Table XV, class 536, subclass 24.5.

Group 2462-2613, claim(s) 26 (in-part), drawn to an antisense nucleic acid which is complimentary to at least 6 nucleotide of the second nucleic acid encoding the second amino acid sequence of a polypeptide listed in Table XV to the remainder of the nucleic acid encoding polypeptides in Table XV, and all the nucleic acid encoding polypeptides of Table XVI & XVII (153 species) respectively, class 536, subclass 24.5.

Group 2614, claim(s) 27-28 (in-part), drawn to a method of diagnosing an organism comprising detecting alteration in the sequence of a fat metabolism regulator nucleic acid molecule, encoding the first polypeptide listed in Table XII, class 435, subclass 6.

Group 2615-2766, claim(s) 27-28 (in-part), drawn to a method of diagnosing an organism comprising detecting alteration in the sequence of a fat metabolism regulator nucleic acid molecule, encoding the second polypeptide listed in Table XII (520 species) to the remainder of polypeptides of Table XII, and all the polypeptides of Tables XIII (500 species) & XIV (225 species) (a total of 1245 species) respectively, class 435, subclass 6.

Group 2767, claim(s) 29 (in-part), drawn to a collection of primer sets, each of said primer sets comprising at least 2 primers that bind to a first nucleic acid sequence of a

fat metabolism regulator nucleic acid encoding the polypeptide molecule listed in Table IX (1680 species), class 536, subclass 24.33.

Group 2768-7167, claim(s) 29 (in-part), drawn to a collection of primer sets, each of said primer sets comprising at least 2 primers that bind to a second nucleic acid sequence of a fat metabolism regulator nucleic acid encoding the polypeptide molecule listed in Table IX (1680 species) to the remainder of the sequences of Table IX; and all the primer sets listed in Table X (1100 species), Table XI (600 species), Table XII (520 species) and Table XIII (500 species); a total of 4400 species, class 536, subclass 24.33.

note: (1) Table IV shows *lpo-3* mapping to chromosome I, no primer sets are disclosed; Similarly. Primers are short single stranded RNA or DNA segment that functions as the starting point for the polymerization of nucleotides. Based upon this definition, the gene names or accession numbers of Tables IX-XIII do not appear to be primer sequences.

(2) Applicants are invited to correct if the number of species counted is in error),

2. The inventions are distinct, each from the other, because of the following reasons:

3. Each of the groups 1-7167 employ a distinct polypeptide, gene sequence in a method having varying method step(s), such as the use of these methods for identifying a candidate compound that modulates fat metabolism, or identifying a nucleic acid, and so on, are therefore structurally and functionally distinct. Each of the methods or products of groups 1-7167 have a distinct method step, a distinct DNA or protein. Although the class/subclass of some of the Groups overlap, however, the searches are not coextensive, searching for group I does not always gather art for group II as additional classes need to be searched or additional sequences need to be searched. This additional searching as explained above would therefore involve undue burden to the Examiner.

4. Applicants are advised that the reply to this requirement MUST include an election of the invention to be examined, even though the requirement be traversed (37 CFR 1.143).

5. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tekchand Saidha whose telephone number is (571) 272 0940. The examiner can normally be reached on 8.30 am - 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on (571) 272 0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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